

Appl. No. 10/803,392
Amdt. Dated 27-Apr-06
Reply to Office Action of March 8, 2006
Attorney Docket No. : 6006-146

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): An endoluminal stent comprising:

a. a plurality of circumferential expansion elements co-axially spaced to form a generally substantially tubular configuration and each having a generally substantially undulating pattern of peaks and valleys interconnected by struts, wherein the struts form generally substantially linear sections and are interconnected at the peaks and valleys by hinge elements; and

b. a plurality of generally substantially linear interconnecting elements interconnecting adjacent pairs of circumferential expansion elements and joined at approximate mid-points of adjacent struts along a longitudinal axis of the endoluminal stent;

c. wherein the hinge elements have a width narrower than a width of the struts.

2. (Currently Amended): The endoluminal stent according to Claim 1, wherein each of the plurality of circumferential expansion elements further comprises a generally substantially zig-zag configuration along a circumferential axis of the endoluminal stent wherein the struts are generally substantially uniform in width throughout the entire section of the struts ~~and the hinge elements have a width narrower than a width of the~~ struts.

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3. (Currently Amended): The endoluminal stent according to Claim 2, wherein the plurality of ~~generally~~ substantially linear interconnecting elements further comprises ~~generally~~ substantially curvilinear first and second terminal sections at opposing ends of each interconnecting element that join with the struts.

4. (Previously Amended): The endoluminal stent according to Claim 3, wherein each of the plurality of circumferential expansion elements are integral and monolithic with each of the plurality of interconnecting elements.

5. (Currently Amended): The endoluminal stent according to Claim 4, wherein the ~~generally~~ substantially curvilinear first and second terminal sections of the plurality of ~~generally~~ substantially linear interconnecting elements further comprise ~~generally~~ substantially C-shaped sections.

6. (Canceled)

7. (Currently Amended): The endoluminal stent according to Claim 1, wherein the plurality of ~~generally~~ substantially linear interconnecting elements are all parallel to each other.

8. (Currently Amended): The endoluminal stent according to Claim 1, wherein the plurality of ~~generally~~ substantially linear interconnecting elements are arrayed as at least two groups of interconnecting elements along a longitudinal axis of the endoluminal stent, a first of the at least two groups having a different angular orientation relative to the longitudinal axis of the endoluminal stent than a second of the at least two groups.

9. (Original): The endoluminal stent according to Claim 1, wherein the endoluminal stent elongates along the longitudinal axis of the endoluminal stent as it expands from a smaller diameter to a larger diameter.

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10. (Previously Presented): An endoluminal stent comprising:

a. a plurality of circumferential expansion elements co-axially spaced to form a generally tubular configuration, each having a generally undulating pattern of peaks and valleys interconnected by struts forming a generally zig-zag configuration along a circumferential axis of the endoluminal stent wherein the struts form generally linear sections and are interconnected at the peaks and valleys by hinge elements having a width narrower than a width of the struts; and

b. a plurality of generally linear interconnecting elements comprising generally curvilinear first and second terminal sections at opposing ends of each interconnecting element that join with the struts, each of the generally curvilinear first and second terminal sections of the plurality of generally linear interconnecting elements further comprising generally C-shaped sections having a width narrower than a width of the remainder of the interconnecting element, the plurality of generally linear interconnecting elements interconnecting adjacent pairs of circumferential expansion elements and joined at approximate mid-points of adjacent struts along a longitudinal axis of the endoluminal stent; and

wherein each of the plurality of circumferential expansion elements are integral and monolithic with each of the plurality of interconnecting elements.

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11. (Currently Amended): An endoluminal stent comprising:

- a. a plurality of circumferential expansion elements co-axially spaced to form a generally substantially tubular configuration and each having a generally substantially undulating pattern of peaks and valleys interconnected by struts; and
- b. a plurality of generally substantially linear interconnecting elements interconnecting adjacent pairs of circumferential expansion elements and joined by strain relief sections at approximate mid-points of adjacent struts along a longitudinal axis of the endoluminal stent
- c. wherein the strain relief sections have a width narrower than a width of the struts.